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AUTHOR Krannich, Caryl Rae
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ABSTRACT

Ten college classes of speech communication students were used to examine the relationships among prior attitude, mode of presentation, and distortion of a high intensity (positive) persuasive communication. Three classes heard messages while four classes read messages. The remaining three classes were not exposed to messages and served as a control group. All the students completed cloze tests for message recall and an attitude scale of their feelings toward the statements one week after the messages were presented. Significant differences appeared between the control group and each of the experimental groups, with the control group distorting the messages to a significantly greater extent than either the written or oral groups. The results also indicated significantly greater distortion in the oral channel than in the written channel, and a significant difference in recall within the written channel between subjects in moderate agreement and those expressing strong agreement with the statements. (RI)

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SOME EFFECTS OF PRIOR ATTITUDE, LANGUAGE INTENSITY, AND MODE OF PRESENTATION ON DISTORTION OF PERSUASIVE COMMUNICATION*

Caryl Rae Krannich
Assistant Professor
Department of Speech Communication
Old Dominion University
Norfolk, Virginia 23508

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SOME EFFECTS OF PRIOR ATTITUDE, LANGUAGE INTENSITY, AND MODE OF PRESENTATION ON DISTORTION OF PERSUASIVE COMMUNICATION

Selective retention refers to the storage and retrieval of a fraction of an original message.[1] While several studies of the influence of prior attitude, set, and frame of reference on learning support the operation of selective retention,[2] others do not.[3] Still other studies report that the original message may be distorted in the act of recall.[4]

Since studies of selective retention represent a variety of methodological approaches, they preclude useful generalizations about factors affecting recall and distortion of persuasive communication. However, these studies do indicate that selective retention most likely occurs when the message concerns an important or involving topic, when the text of recall is delayed more than forty-eight hours, and when the message is longer than the twenty-five or fifty word segments frequently used in earlier research.[5] Further, in order to examine distortion, a free recall test must be used so that the subject can use his or her own frame of reference in the retrieval process.

The primary purpose of this study is to examine the relationships among prior attitude, mode of presentation, and distortion of a high intensity "pro" persuasive communication. In addition, this study assesses a method of measuring message distortion by combining Osgood's Evaluative Assertion Analysis with Taylor's Cloze Procedure. In so doing, the study provides additional support for the phenomenon of selective retention within the framework of evaluative assertion analysis.

RATIONALE AND HYPOTHESES

The theoretical foundation of this study is derived largely from previous works on social judgment formulations and language intensity.[6] Social judgment formulations predict that the message will be assimilated or contrasted, depending on differences in the positions of the source and the receiver on the issue. However, such predictions assume that the source's position can be readily identified by the receiver. Investigations of language intensity assume that intensity is the quality of language which reveals the degree to which the source's attitude toward a concept deviates from neutrality. If message distortion results from assimilation or contrast, then the degree of distortion should be reflected in the difference between the intensity of the original language of the message and the intensity of the language used by the receiver to reconstruct the message.[7] Therefore, it was hypothesized that:

H_1 Subjects will recall a high intensity "pro" message with greater distortion when they are in moderate agreement with the source's position than when they are in strong agreement.

A secondary hypothesis was derived from previous research concerning interrelationships among mode of presentation, mode of testing, and recall of material. Hartman[8] has argued that scores on tests of recall are likely to be higher when the mode of testing corresponds to the mode of presentation. Since testing was to utilize a written recall, it was hypothesized that:

H_2 Subjects will recall a high intensity "pro" message with greater distortion when they listen to it than when they read it.

METHOD

Pre-testing was responsible for constructing a message on a topic that was ego involving to college students as well as stable enough so that external events would not alter its saliency. The message dealt with the use of human subjects for experimental research. Pre-testing also determined that the length of the message should be approximately two hundred words. It further indicated that the message should utilize intense language so that those who found it dissonant could reconstruct the message with language of lesser intensity. A "pro" high intensity message was used since Bowers found that it generated different effects than "anti" high intensity messages; high intensity "anti" messages tended to produce boomerang effects.[9]

A modified Likert scale developed by R. F. Weiss[10] was selected as the attitude measuring device. It was chosen because it was easy to administer and yet the subjects could express a range of attitudes toward the topic. Two statements were selected which reflected the main ideas presented in the message:

The exclusive use of animals as subjects for experimental research is not sufficient to learn of human behavior.

The best way to study people is to use humans as subjects in experimental research.

Each statement was placed on a separate page along with the attitude scale.

A lexical cloze test was designed by taking a printed copy of the message and deleting every tenth noun, main verb, or adjective that was a high intensity word. Twenty deletions were made which comprised ten per cent of the message.

PROCEDURE

Subjects consisted of students in ten sections of the basic speech course at The Pennsylvania State University. In administering the materials, the instructor read a standardized set of directions to each class. The experimental groups consisted of three classes that listened to the message (oral channel condition) and four classes that read the message (written channel condition). The three remaining classes comprised the control group and were not exposed to the message. Except for the channel of message presentation, the same procedure was used for the classes receiving both the oral and written message. The subjects were asked to record on the attitude scale their feelings toward the two statements. After collecting the completed papers, the subjects were then asked to carefully listen to—or read—the message. This sequence was repeated so that subjects were exposed to the message twice.

Exactly one week later subjects were asked to recall either the oral or written messages by using one word to complete each blank on the cloze test. After collecting the papers, subjects were told that the questionnaire they had completed the previous week had been lost at the computer center, and they were asked to complete the questionnaire

again.

The procedure with the control group required only one session. Using the cloze test, subjects were asked to fill in the blanks with words a speaker or writer might use. After completing this task, the subjects took the Weiss attitude questionnaire.

ANALYSIS

Evaluative assertion analysis, a method developed by Osgood, Saporta, and Nunnally, was used for rating the responses of subjects on the cloze test. As a form of content analysis which extracts from a message evaluations assigned to specific concepts, this method has achieved a high degree of reliability between raters.[11]

Evaluative assertion analysis assigns words to categories termed "connectors" or "evaluators". The direction of connection may be either associative or disassociative. After determining the direction of the connector or evaluator, intensity ratings are assigned which range

from positive three to negative three. However, in this study none of the ratings were in a negative direction. In assigning intensity ratings, those connectors or evaluators considered to be extremely positive or negative were rated three; those deemed quite positive or negative were rated two; and those judged to be positive or negative were rated one. Neutral evaluators received a zero intensity rating.

Each subject's attitude was tabulated on the pre and post tests. In analyzing the data, the two extreme points--"very strongly agree" (or disagree) and "somewhat strongly agree" (or disagree)--as well as the two moderate points on the scale--"moderately agree" (or disagree) and "slightly agree" (or disagree)--were treated as single response categories. The collapse of these response categories was necessary in order to have a large enough number of subjects for a reliable statistical analysis.

The intensities of the words the subjects used to complete the cloze test were also tabulated and a score computed that indicated the distance between each subject's word-intensity score and the score for the actual message. Since the deleted words were at the highest level of intensity for eighteen of the twenty words deleted, the subjects could distort the original message only to a lower level of intensity. For the remaining two words there were only four instances in which subjects used a word of higher intensity than the one actually used in the message. Since this number was so small, these instances were included with the other distortion scores rather than handled as a separate group.

Two raters assigned intensity values to the words subjects supplied

on the cloze test. In rating the intensities of the words used in the actual message which had been deleted for the cloze test, the two raters achieved a 1.00 reliability coefficient. The inter-rater reliability coefficient for the words supplied by the subjects in the cloze test was .85. In only one case did the ratings differ by more than one point and in that instance the difference was two points.

RESULTS

Few subjects disagreed with the two statements on the attitude questionnaire. This finding was unexpected given pre-testing results which had attitudes ranging from strongly disagree to strongly agree. However, not enough subjects indicated strong or moderate disagreement for an appropriate statistical test to be conducted on these two attitude groups. Therefore, the only comparisons of subjects' attitudes were between those who expressed moderate agreement and those who expressed strong agreement. The distribution of responses by treatment group is presented in Table 1.

(TABLE 1 about here)

Analysis of variance was used to compute F values indicating the reliability of the observed differences among groups for each of the two statements. Barlett's test for homogeneity of variance was used in analyzing responses to Statement One. It produced as chi square of 6.1671 with 5 degrees of freedom. A probability of .290 supported the assumption of homogeneity of variance. No significant differences appeared in comparing the moderately agree responses with the strongly

agree responses to the statement. The results of these comparisons are summarized in Table 2.

(TABLE 2 about here)

However, when no distinction was made regarding the position of agreement, a comparison of means for each treatment group did suggest differences. Duncan's test of least significant differences was used for this comparison. The results of this analysis are summarized in Table 3.

(TABLE 3 about here)

Significant differences were apparent between the control group and each of the experimental groups. The control group distorted the message to a significantly greater extent than subjects in either the written or oral groups. Subjects in the control group used language that was less intense than language in the experimental message.

Barlett's test of homogeneity of variance also was used for analyzing responses to Statement Two. It produced a chi square of 3.0366 with 5 degress of freedom. A probability of .694 supported the assumption of homogeneity of variance. The results of this analysis are summarized in Table 4.

(TABLE 4 about here)

Since this analysis indicated the presence of an interaction, Duncan's test of least significant differences was used as a test of multiple comparisons. As a result, a significant difference between the

subject's recall in the oral and written channels was evident at the moderate level of agreement. The distortion taking place in the oral channel was significantly greater than the distortion taking place in the written channel. The results also indicated a significant difference within the written channel between recall of subjects expressing moderate agreement and those expressing strong agreement with the attitude statement. Subjects expressing moderate agreement distorted the message to a significantly greater extent than those expressing strong agreement with the message. Those expressing moderate agreement used less intense language than language used in the message. The results of this analysis are summarized in Table 5.

(TABLE 5 about here)

DISCUSSION OF RESULTS

On the first statement, no significant differences appeared when respondents were compared according to the response categories of moderate agreement and strong agreement. However, when the mean scores for the written, oral, and control groups were compared, the control group was significantly different from either of the experimental groups. While the control group reflected a "pro" point of view, it used less intense language than that used in the message. This indicates that there were enough cues in the text of the cloze test message for the position of the message--whether pro or con--to be detected; but enough cues had been deleted so that the intensity of the message was not apparent. As a result, the control group used words of significantly lesser intensity than that used in the message, because they had no

reference for the high intensity language used in the experimental message. The two experimental groups recalled the strong position taken in the message and selected words of greater intensity which more approximated the language used in the actual message.

On the second statement, there was a significant difference between the written, oral, and experimental groups at the moderately agree level. Subjects exposed to the oral message distorted the message to a greater extent than those exposed to the written message. This meant that subjects in the oral channel condition used less intense language than those in the written channel condition and, thus, assimilated and recalled the material less intensely and more consistently with their moderate views on the attitude questionnaire. The greatest assimilation took place with subjects exposed to the oral message, because there were fewer external cues available to them. Subjects heard the oral message twice and could not go back to check the information. Though asked to read the material twice, subjects in the written channel could go back to reread portions of the message more than once. Since the average reader subvocalizes (says each word to himself) as he reads, most readers see and hear the material they read. With fewer external cues available to subjects in the oral channel, they assimilated the message to a greater extent as well as recalled less of the message because they relied more on their own attitudinal framework. This finding also tends to confirm Hartman's agrument that subjects recall material more accurately when the channel of presentation and the channel of testing are the same.

In the written channel condition, those expressing moderate agreement distorted the message to a significantly greater extent than those expressing strong agreement. Again, the distortion made by

subjects in the moderate group appeared to be a function of bringing the material closer to their own frame of reference. Meta-communication possibly explains why this assimilation was noted only in the written condition. Subjects exposed to the oral message were also exposed to paralinguistic features which supported the intensity of the language used. Hence, the clarity and uniformity of the message stimulus as it conveyed intensity was greater. Since subjects projected their own inflections as they read the message, the clarity of the stimulus was less, and subjects may have initially brought the message more in line with their own attitudes. These distortions probably would have become even greater as the time lapse between exposure to the message and recall of the material lengthened.

CONCLUSION

More research is needed before these findings can be further generalized. However, the present research does provide support for the contention that it is possible to specify situational variables that contribute to selective retention. Furthermore, it supports the use of evaluative assertion analysis as a means of identifying word direction and intensity, thus making it possible to use tests of recall such as the cloze procedure that permit the subjects to reconstruct the message and still provide an appropriate method of scoring distortions.

Increased knowledge of selective retention phenomena should be useful to teachers in better understanding the influence of frame of reference on learning. Thus far research suggests that selective retention operates to a greater degree with oral material than with

written material. If so, then teachers should be aware that selective retention may occur more in lecture situations than in reading textbook assignments.

As long as retention was considered to be a result of individual differences in intelligence and motiviation, without regard to affective factors. the behavioral sciences could not make subetantial progress toward an understanding of learning and recall. The uniquely human concept of attitude contributes considerably to the understanding of this phenomenon.

TABLE 1

DISTRIBUTION OF RESPONSES BY TREATMENT GROUP

	Oral Condition	Written Condition	Control Group
Statement One:	The exclusive use of animals as subjects for experimental research is not sufficient to learn of human behavior.		
Moderate Agreement	15	14	16
Strong Agreement	18	14	25
Statement Two:	The best way to study people is to use humans as subjects in experimental research.		
Moderate Agreement	13	16	21
Strong Agreement	13	9	16
TOTALS	59	53	78

TABLE 2

SUMMARY OF ANALYSIS OF VARIANCE OF DISTORTION SCORES AS A FUNCTION OF ATTITUDE AND CHANNEL

Source	SS	MS	df	p
Statement One				
Attitude	22.79	22.79	1	.322
Channel	206.22	103.11	2	.014*
Attitude x Channel	84.81	42.40	2	.164
Error	2211.57	23.04	96	

*Indicates a significant test with a = .05

TABLE 3

SUMMARY OF MULTIPLE COMPARISONS OF DISTORTION SCORE MEANS AS A FUNCTION OF CHANNEL CONDITION

Group Identification	Written	Oral	Control
Statement One			
Number	28	33	41
Mean	18.22	17.77	20.86
	A	A	B

Means underscored by the same letter are not significantly different from each other.

TABLE 4

SUMMARY OF ANALYSIS OF VARIANCE OF DISTORTION SCORES AS A FUNCTION OF ATTITUDE AND CHANNEL

Source	SS	MS	df	p
Statement Two				
Attitude	2.66	2.66	1	.739
Channel	72.33	36.17	2	.224
Attitude x Channel	155.67	77.83	2	.043*
Error	1947.01	23.77	82	

*Indicates a significant test with a = .05

TABLE 5

SUMMARY OF MULTIPLE COMPARISONS OF DISTORTION SCORE MEANS AS A FUNCTION OF ATTITUDE AND CHANNEL CONDITION

Group Identification	Moderate Agreement Written	Moderate Agreement Oral	Strong Agreement Written	Strong Agreement Oral
Statement Two				
Number	16	13	9	13
Mean	20.81	17.15	16.72	19.62
	A	B	B	AB

Means underscored by the same letter are not significantly different from each other.

FOOTNOTES

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4. Walter S. Watson and George W. Hartmann, "The Rigidity of a Basic Attitudinal Frame," Journal of Abnormal and Social Psychology, 34 (1939), pp. 314-35; Kenneth B. Clark, "Some Factors Influencing the Remembering of Prose Material," Archives of Psychology, 36 (1940), no. 253, pp. 5-65; Alper and Korchin; and Amrit Kaur Gailon, "The Effect of Attitude on Learning and Recall" (unpublished Ph.D. dissertation. University of California at Berkeley, 1966).

5. Distortion is most likely when the source's position on the issue is identifiably discrpant from the receiver's position on the issue. Alper and Korchin; and Gailon.

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10. Ibid., pp. 349-51.

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